ACC.12
61st Annual Scientific Session & Expo
ACC-i2 with TCT innovation in intervention

E1275
JACC March 27, 2012
Volume 59, Issue 13

# Imaging

## PROGNOSTIC VALUE OF STRESS ECHOCARDIOGRAPHY IN PATIENTS WITH MULTIVESSEL CORONARY ARTERY DISEASE

ACC Moderated Poster Contributions
McCormick Place South, Hall A
Saturday, March 24, 2012, 11:00 a.m.-Noon

Session Title: Imaging: Echo Stress
Abstract Category: 22. Imaging: Echo
Presentation Number: 1098-334

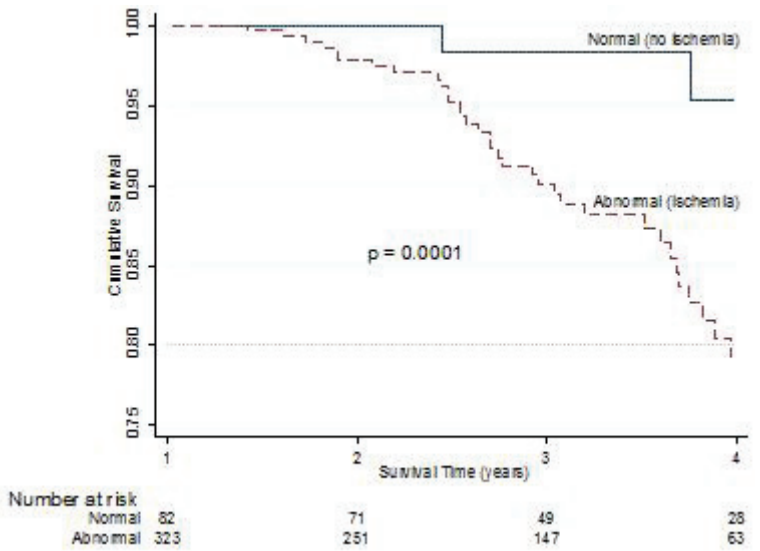
Authors: *Vikram Agarwal, Siu-Sun Yao, Farooq Chaudhry, St. Luke's-Roosevelt Hosp Ctr, New York, NY, USA*

**Background:** The purpose of this study was to evaluate the prognostic value of stress echocardiography (SEcho) in patients with multivessel coronary artery disease (high risk coronary anatomy).

**Methods:** We evaluated 406 patients (65 ± 10 years; 63% males) referred for SEcho (45% treadmill, 55% dobutamine) and who underwent Secho and coronary angiography within 3 months and without intervening coronary revascularization. All patients had multivessel CAD as defined by coronary stenosis (≥50% left main or ≥70% in 2 or more major epicardial vessels). The left ventricle was divided into 16 segments and scored on a 5-point scale of wall motion. Patients with abnormal results on SEcho were defined as those with stress-induced ischemia (increase in wall-motion score of ≥1 grade).

**Results:** Followup (3.1 ± 1.2 years) for non-fatal MI (n = 35) and cardiac death (n = 31) was obtained. In patients with multivessel CAD, SEcho effectively risk stratified normal (no ischemia, n = 83) in contrast to abnormal (ischemia, n = 326) groups for cardiac events (event rate 1.9%/year vs. 5.4%/year; p = 0.01)[graph]. Multivariate logistic regression identified age (HR:1.04; 95%CI: 1.01-1.05; p = 0.02) and stress-induced ischemia (HR:3.2; 95%CI:1.1-8.9; 95%; p = 0.03) as significant predictors of adverse cardiac events.

**Conclusions:** In patients with multivessel CAD, (1) normal results on SEcho conferred a low-intermediate cardiac event rate (1.9%/year); (2) abnormal SEcho results identified a high risk group (5.4%/year).




.